

U.S. Patent Application Serial No. 09/916,314
Response filed September 6, 2006
Reply to OA dated May 8, 2006

REMARKS

Claims 2, 7, 8 and 20 are pending in this application. No amendment is made in this Response. The Applicant respectfully submits that no new matter has been added. It is believed that this Amendment is fully responsive to the Office Action dated **May 8, 2006**.

Claims 7, 8 and 20 are allowed. (Office action item no. 5)

Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over Grushin et al. (US 2002/0121638 A1) (Office action item no. 7)

The rejection of claim 2 is respectfully traversed, and reconsideration of the rejection is requested.

The Examiner cites Grushin et al. at paragraphs [0063] and [0065] as teaching an iridium metal complex as part of an electron transport layer and/or emitting layer, and that the electron transport layer is disposed adjacent a cathode of a light emitting device, or that the device may be comprised of a light emitting layer between two electrodes. The Examiner also cites paragraph [0071] as disclosing that the cathode may be formed of alkali metals or alkali earth metals.

In traversing the rejection, Applicant notes that paragraph [0063] of Grushin refers to Fig. 1 as showing a typical device structure. Fig. 1 of the reference shows, in order (bottom to top), cathode 150, electron transport layer 140, photoactive layer 130, hole transport layer 120, and anode

U.S. Patent Application Serial No. 09/916,314
Response filed September 6, 2006
Reply to OA dated May 8, 2006

110. Paragraph [0065] indicates that the iridium complex is used as the photoactive material in layer 130, or as the electron transport material in layer 140. The emitting layer may also have a polymeric diluent.

In the rejection, the Examiner has apparently assigned electron transport layer 140, which can contain the iridium complex, as corresponding to the “second conductive film” in claim 2 (see Office action, page 2, last line, to page 3, line 1). The Examiner notes that Grushin's cathode (i.e., cathode 150) can be formed of an alkali metal or alkaline earth metal. (Paragraph [0071] of the reference discloses that the cathode 150 can be any metal or nonmetal having a lower work function than the anode, and discloses that the materials for the cathode can be selected from alkali metals and alkaline earth metals, as well as other metals.)

However, Applicant respectfully submits the Examiner's assignment is **inconsistent with the structure recited in claim 2**. Claim 2 requires that the cathode consist of “a first conductive film that contacts to said organic EL layer” and that this first conductive film contains an alkali metal or an alkaline earth metal. That is, in claim 2, the **layer contacting the EL layer** has the alkali metal or the alkaline earth metal. In Grushin, the layer contacting the EL layer (layer 130) on the cathode side would be **hole transport layer 140** (see Grushin's Fig. 1). However, **hole transport layer 140 does not have the alkali metal or alkaline earth metal**; cathode layer 150 has this material.

Similarly, claim 2 requires that the “second conductive film,” which “constitutes a laminated structure together with said first conductive film” and is therefore not the layer contacting the EL

U.S. Patent Application Serial No. **09/916,314**
Response filed September 6, 2006
Reply to OA dated May 8, 2006

layer, contains the Ru, Rh, Ir, Os or Re. However, in Grushin, **cathode 150 is the layer of the cathode that does not contact the EL layer, and layer 150 does not contain Ir.** The Ir complex is in layer 130 or 140.

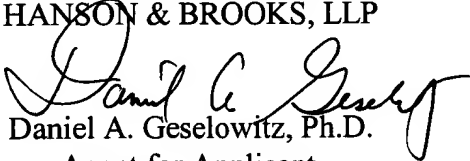
Applicant therefore submits that the structure in Grushin et al. is completely inconsistent with that recited in claim 2. There is no suggestion for the structure of claim 2 in the reference, and claim 2 is not obvious over Grushin et al. '638.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the Applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS,
HANSON & BROOKS, LLP


Daniel A. Geselowitz, Ph.D.
Agent for Applicant
Reg. No. 42,573

DAG/bh
Atty. Docket No. **010935**
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930



23850

PATENT TRADEMARK OFFICE